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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/613,650  
Filing Date: July 11, 2000  
Appellant(s): BUECHLER, KENNETH F.

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Mr. Ray Akhavan  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 8/1/08 appealing from the Office action  
mailed 7/13/07.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is substantially correct. In light of Appellant's remarks in the 3/10/08 appeal brief and the 1/23/06 terminal disclaimer, the obviousness type of double patenting rejections of claims 74-84 and 92-100 over USP 5,458,852 have been vacated.

Additionally, in light of Appellant's remarks in the 3/10/08 appeal brief the 35 USC 112 1<sup>st</sup> and 2<sup>nd</sup> paragraph rejections have also been vacated.

This appeal involves the rejection of claims 74-81 and 92-99 under 35 USC 102(b) as being anticipated by Stocker (USP 4,647,543).

The appeal involves the rejection of claims 82 and 100 as rejected under 35 USC 103 over Stocker alone or further in view of either Lingberg (USP 5,091,318) or Rohr (USP 5,445,970).

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

**WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner.

In light of Appellant's remarks in the 3/10/08 appeal brief and the 1/23/06 terminal disclaimer, the obviousness type of double patenting rejections of claims 74-84 and 92-100 over USP 5,458,852 have been vacated.

Additionally, in light of Appellant's remarks in the 3/10/08 appeal brief the 35 USC 112 1<sup>st</sup> and 2<sup>nd</sup> paragraph rejections have also been vacated.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,647,543	Stocker	03-1987
5,091,318	Anwals et al.	02-1992
5,445,970	Rohr	08-1995

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Before addressing the rejections below, the Office will describe how the pending claims have been interpreted. Both independent claims 74 and 92 are directed to a "nonporous smoother surface or a nonporous textured surface ...". Because of the alternative claim language "or", either the "smooth" or "textured" surface could be

considered. For the purposes of this Answer, the Office will address the "nonporous smooth surface."

The next limitation is "a plurality of discrete capture zones on said surface, each said capture zone comprising receptors immobilized to said surface or immobilized on particles ...". Again because of the alternative claim language "or" the Office will address the limitations "capture zone comprising receptors immobilized to said surface". The limitations under consideration thus far are " a nonporous smooth surface ... capture zone comprising receptors immobilized to said surface." These claims further require "wherein said capture zones occupy one or more discrete hydrophilic regions of the said surface delimited by an adjacent hydrophobic region of said surface." The limitations being considered in claims 74 and 92 are " a nonporous smooth surface ... capture zone comprising receptors immobilized to said surface ... wherein said capture zones occupy one or more discrete hydrophilic regions of the said surface delimited by an adjacent hydrophobic region of said surface." The limitations to the "nonporous textured surface" and "particles" have not been further considered because they have been recited in the alternative language "or".

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 74-81 and 92-99 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Stocker (USP 4,647,543).

Stocker teaches a device for immunological testing of immobilized samples.

Figure 6(a) a plate(2) comprising supports(1a) within a hydrophilic area(3) for sample capture and a surrounding hydrophobic area(4). This has been read on the claimed hydrophilic/capture zones and adjacent hydrophobic zones. Column 6 lines 22-23 teach immobilizing the biological material on the surface which has been read on the claimed "capture zone comprising receptors immobilized to said surface". Also, column 7 lines 1-2 teach the sample is chemically bonded to the support. Column 5 lines 59+ and claim 8 teach the surface is not flat and has "depressions" where the sample can be trapped. Column 6 lines 55-58 teach the depth of the depressions is a "reliable finite distance greater than or equal to zero". This surface could be read on either the "nonporous smooth surface" or the "nonporous textured surface". For the purposes of examination, the Office will only consider the "nonporous smooth surface". Column 8 lines 5-7 teach use of monoclonal antibodies. Column 7 lines 33-45 teach glass particles adhered to the plate which have been read on the claimed "particles immobilized to said surface" of claims 79 and 97.

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 82 and 100 rejected under 35 U.S.C. 103(a) as being unpatentable over Stocker alone or further in view of Anawls et al. or Rohr.

See Stocker *supra*.

Stocker is silent to the claimed material of the particles.

The Court decided In re Leshin , (125 USPQ 416) the selection of a material of construction based upon its "suitability of intended use, would be entirely obvious". The claimed latex, zirconia, alumina, titanium, etc. particles are all well known for their inertness, availability and long track record of use with immunological materials. It would have been within the skill of the art to modify Stocker and use any one of the claimed latex, zirconia, alumina, titanium, etc. particles for the above advantages and as selection of a material based upon its suitability of intended use.

Anawls et al. (USP 5,091,318) teach titania, zirconia and alumia are all well known support materials for immunoassay. Additionally, claim 47 claims latex as a support material.

Rohr (USP 5,445,970) also teaches titania, zirconia, latex and alumia are well known support materials for immunoassays.

The Court decided In re Leshin , (125 USPQ 416) the selection of a material of construction based upon its "suitability of intended use, would be entirely obvious". Anawls et al. and Rohr both teach the claimed latex, zirconia, alumina, titanium, etc. particles are all well known as support materials for immunoassay. It would have been within the skill of the art to modify Stocker in view of either Anawls or Rohr and use any one of the claimed latex, zirconia, alumina, titanium, etc. particles for their well known use in immunoassays as selection of a material based upon its suitability of intended use.

**(10) Response to Argument**

1. In light of Appellant's remarks in the 3/10/08 appeal brief and the 1/23/06 terminal disclaimer, the obviousness type of double patenting rejections of claims 74-84 and 92-100 over USP 5,458,852 have been vacated.

2.& 3. In light of Appellant's remarks in the 3/10/08 appeal brief the 35 USC 112 1<sup>st</sup> and 2<sup>nd</sup> paragraph rejections have been vacated.

4. In consideration of claims 74 and 92, Appellant state on page 15, Stocker could be read to teach a nonporous smooth surface and hydrophobic/hydrophilic capture zones. Appellant state that Stocker does not teach "receptors immobilized" to the capture zones. The Office does not agree. Stocker teach in column 4 lines 46-69 "immobilized biological material" that is suitable for "immunoassays" which have been properly read on the claimed "receptors immobilized to said surface." Applicants' remarks about the relative size of the particles is not convincing because that alternative scenario is not being considered.

5. In consideration of claims 75 and 93, Appellant states the Office's references to column 10 lines 1-10 of Stocker fails to teach immobilization of antibodies, antibody fragments, nucleic acid molecules or chelators on the porous smooth surface. Appellant states Stocker teaches immobilization of the antibodies to a tissue section and not to directly to the surface. The instant claim language of "comprises" is open and does not exclude the presence of addition element, such as the tissue section, on the surface. The Office maintains the antibodies are immobilized on the surface through the tissue sample and have been properly read on the instant claims.

6. In consideration of claims 76 and 94, Appellant states the Stocker fails to teach each capture zone binds a different ligand. Applicant state the Office's reference to column 3 lines 27+ of Stocker does not teach each capture zone binding a different ligand. Stocker teaches in column 3 lines 27+ the use of **different tissue samples** in different wells which has been properly read on the claimed "different target ligands". Also, column 10 lines 11-29 teach "determining the antibodies against nuclei in 200 different samples" which further evidences the use of binding different ligands.

7. In consideration of claims 77 and 95, Appellant states Stocker fails to teach the target ligands are nucleic acids and that each capture zone comprises a complementary nucleic acid molecule to the ligand. The Office maintains Stocker teaches the binding of antibodies, which contain nucleic acids, to there complementary receptor and is indistinguishable from the instant claims.

8. In consideration of claims 78 and 96, Appellant states these claims depend from 74 and 92 as and define over Stocker for the same reasons. The Office maintains the rejections of claims 74,78, 92 and 96 over Stocker is proper for the reasons of record.

9. In consideration of claims 79 and 97, Appellant states these claims depend from 74 and 92 and define over Stocker for the same reasons. The Office maintains the rejections of claims 74, 79, 92 and 97 over Stocker is proper for the reasons of record. Column 7 lines 33-45 teach glass particles adhered to the plate which have been read on the claimed "particles immobilized to said surface" of claims 79 and 97.

10. In consideration of claims 80 and 98, Appellant states these claims depend from 74 and 92 and define over Stocker for the same reasons. The Office maintains the rejections of claims 74,80,92 and 97 over Stocker for the reasons of record. Appellant additionally states the reference by the Office to column 10 lines 1-30 of Stocker fail to teach the receptors are antibodies. The Office does not agree and maintains the receptors on the tissue section are antibodies.

11. In consideration of claims 81 and 99, Appellant states these claims depend from 74 and 92 and define over Stocker for the same reasons. The Office maintains the rejections of claims 74, 81,92 and 99 over Stocker for the reasons of record. Appellant further states Stocker fails to teach the claimed "particles are entrapped." Stocker teach in column 5 lines 59+ and claim 8 the surface is not flat and has "depressions" where the sample can be trapped. Column 6 lines 55-58 teach the depth of the depressions is a "reliable finite distance greater than or equal to zero". This surface has been properly read on the claimed "particles are entrapped."

12. In consideration of claims 82 and 100, Appellant states these claims depend from 74 and 92 and define over Stocker for the same reasons. The Office maintains the rejections of claims 74,82,92 and 100 over Stocker for the reasons of record. The remainder of Applicant's remarks state there is no motivation to make the 35 USC 103 rejections of record. The Office maintains it would have been within the skill of the art to modify Stocker alone or in the alternative 35 over Anawls et al. (USP 5,091,318) and Rohr (USP 5,445,970) as secondary references. Appellant state Stoker is directed to the field of light microscopy and any modification of Stoker to use the claimed latex,

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zirconia, alumina or titanium particle instead of the taught glass would destroy the reference. The Office does not agree with Appellant's conclusion the claimed latex, zirconia, alumina or titanium particles would render Stoker inoperative. Stoker is directed to fluorescence assay that measures the fluorescence emissions from the particles. The measurement of fluorescence from the taught glass particles or the claimed latex, zirconia, alumina or titanium particles would have been expected to be indistinguishable.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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